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EG&G ROCKY FLATS

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March 29, 1993

93-RF-3842

F. R. Lockhart
Director Environmental Restoration Division
DOE, RFO

SUBMITTAL FOR INCORPORATION OF POTENTIAL AREAS OF CONCERN (PACs), POTENTIAL INCIDENTS OF CONCERN (PICs), UNDER BUILDING CONTAMINATION SITES (UBCs) INTO EXISTING RFI/RI WORK PLANS - RLB-144-93

Enclosed are our recommendations for incorporating Potential Areas of Concern (PACs), Potential Incidents of Concern (PICs) and Under Building Contamination sites (UBCs), into existing RFI/RI Work Plans or subsequent phases. Please review and forward the enclosed recommendations to the Environmental Protection Agency (EPA) and Colorado Department of Health (CDH).

If you have any questions regarding this transmittal, please contact Nick Demos of my staff at extension 6938.

R. L. Benedetti
R. L. Benedetti
Associate General Manager
Environmental Restoration Management

NSD:lw

Orig. and 1 cc - F. R. Lockhart

Enclosure:
As Stated

cc:
R. J. Schassburger - DOE, RFO

DIST.	LTH	ENG
NEDETTI, R.L.	X	X
NJAMIN, A.		
RMAN, H.S.		
ANCH, D.B.		
RNIVAL, G.J.		
VIS, J.G.		
RRERA, D.W.		
NNI, B.J.		
VRMAN, L.K.		
ALY, T.J.		
DAHL, T.	X	X
LBIG, J.G.		
EKER, E.H.		
BBY, W.A.		
JESTER, A.W.		
IE, E.M.		
ANN, H.P.	X	X
ARX, G.E.		
CDONALD, M.M.		
CKENNA, F.G.		
ONTROSE, J.K.		
ORGAN, R.V.		
OTTER, G.L.		
IZZUTO, V.M.		
ILEY, J.H.		
ANDLIN, N.B.		
HEPLER, R.I.		
TEWART, D.L.		
ULLIVAN, M.T.		
WANSON, F.B.		
Johnson, L.D.	X	X
Peterson, G.A.	X	X
Coussard, M.C.	X	X
Wesby, W.S.	X	X
Combs, W.S.	X	X
SEC, C.B.	X	X
William, M.	X	X
Yates, C.H.	X	X
York, R.Z.	X	X
Laurin, P.J.	X	X
Nast, E.C.	X	X
McHugh, M.F.	X	X
Noy, R.	X	X
McCrack, T.P.	X	X
McTernan, B.D.	X	X
Quince, R.L.	X	X
Schubbe, D.L.	X	X
Fom Files	X	X
RPM Files	X	X
CORRESPONDENCE CONTROL	X	X
TRAFFIC		

CLASSIFICATION:

UCNI	X	X
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER

SIGNATURE
R. J. Schassburger
3/30/93 GND
DATE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS

☐ OPEN ☐ CLOSED
☐ PARTIAL

LTR APPROVALS:
MCB YMB
ORIG & TYPIST INITIALS
NSD:lw

RF-46469 (Rev. 9/92)

ADMIN RECORD

A-DU14-000053

REVIEWED FOR CLASSIFICATION/UCNI	
BY	G. T. Ostdiek 870
DATE	6-4-93

DRAFT

Enclosure 1
RLB-144-93
Page 1 of 6

March 22, 1993

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Denver, Colorado
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cc:
Gary Baughman
Colorado Dept. of Health

RFI/RI WORK PLAN AMENDMENTS FOR INCLUSION OF POTENTIAL AREAS OF CONCERN, POTENTIAL INCIDENTS OF CONCERN, UNDER BUILDING CONTAMINATION SITES, AND NEW OPERABLE UNIT RECOMMENDATIONS

Ref: M. Hestmark ltr (8HWM-FF) to R. Schassburger, Potential Areas of Concern needing further investigation, December 23, 1992.

This letter is in response to your request to address Potential Areas of Concern (PAC's), Potential Incidents of Concern (PIC's), Polychlorinated Biphenyl (PCB) sites, and Under Building Contamination (UBC) issues as listed in Table 1 and 2 of the above referenced letter. Individual Hazardous Substance Site (IHSS) boundary changes observed since the Historical Release Report was completed in June 1992 are also addressed in the Enclosure with this letter.

We have evaluated the list of PACs, PICs, and UBC locations and concur that 81 locations require further investigation. RFI/RI Work Plans and/or subsequent phases can incorporate 41 of the PAC locations (see Table 1). The 41 locations represent 6 of the 26 PCB related PAC areas, 12 of the referenced 31 UBC locations, 21 miscellaneous PACs, and 2 PIC locations. It is also our recommendation that PAC # 000-500 (the plant sewer system) be designated as a new Operable Unit (OU 17) due to its complexity. The remaining 20 PCB related PACs are not within IHSS boundaries and can be remediated under TSCA regulations in a timely manner. The remaining 19 referenced UBC locations will be incorporated into building specific D&D plans. Table 1 (enclosed) identifies dates for submitting in writing how specific PAC, PIC, and UBC investigations will be incorporated.

The recommendations set in this letter will be effective immediately upon your concurrence. Please note however that substantial modifications to existing Work Plans will affect cost and schedule. We request that a meeting be arranged at your convenience to address potential impacts to cost and schedule for several Operable Units as well as cleanup of PCB contaminated areas under TSCA.

If you have any questions regarding these recommendations, please contact Nick Demos at 966-6938.

ATTACHMENT 1

- 1) PCBs - To expedite cleanup of PAC and PIC locations identified to be contaminated with only PCBs, clean up under TSCA regulations per CFR 761.120 will be implemented upon EPA and CDH concurrence. DOE/RFO will submit Investigation and Corrective Action Plans for EPA, and CDH approval prior to initiation of work.

The following PAC and PIC sites identified as being contaminated with only PCBs will be addressed under TSCA:

PAC 100-607	PAC 500-900	PAC 600-1003	PAC 800-1207
PAC 100-608	PAC 500-901	PAC 700-1104	PAC 800-1208
PAC 300-708	PAC 500-905	PAC 700-1105	PAC 800-1209
PAC 300-709	PAC 600-1000	PAC 700-1111	PAC 900-1306
PAC 400-800	PAC 600-1002	PAC 700-1112	PIC # 41

- 2) RFI/RI Work Plan Amendments - We recommend that the following PAC, PIC, and UBC sites be added to the appropriate RFI/RI Work Plans or subsequent phases to approved Work Plans. PAC locations contaminated by PCBs and within existing IHSS boundaries are denoted with an asterisk (*).

PAC 100-602	PAC 400-810	PAC 800-1200	UBC 774	PIC #44
PAC 100-603	PAC 500-902*	PAC 800-1201	UBC 776	
PAC 100-609	PAC 500-904*	PAC 800-1204	UBC 779	
PAC 100-611	PAC 600-1001	PAC 800-1205	UBC 123	
PAC 300-702	PAC 700-1100	PAC 800-1210*	UBC 442	
PAC 400-801*	PAC 700-1101	PAC 900-1301	UBC 444	
PAC 400-802	PAC 700-1102*	PAC 900-1307	UBC 881	
PAC 400-803	PAC 700-1103*	UBC 559	UBC 883	
PAC 400-804	PAC 700-1106	UBC 707	UBC 887	
PAC 400-807	PAC 700-1108	UBC 771	PIC #9	

Operable Unit 6 (Walnut Creek Drainage)

Further investigation of PAC 900-1307 is recommended in the Phase 2 Work Plan since Phase 1 field investigations are complete. Phase 2 is scheduled to begin in the fall of 1994.

Operable Unit 8 (700 Area)

The Phase 1 RFI/RI Work Plan for OU 8 can incorporate PAC 700-1101, and PAC 700-1106 by September 1993 (via Tech Memo 1).

PAC 700-1108 and PIC #44 describe overflows and contamination

into footing drains and an isolated distillate release south of building 374. The OU 8 Phase 1 RFI/RI Work Plan will incorporate these PACs through the development of a Technical Memorandum to investigate historical records and prepare Field Sampling Plans (FSP's) for footing drains and building under-drains in the Industrial Area.

PAC 900-1301 is adjacent to IHSS 184 and 173 within Operable Unit 8. At present, radiological survey investigations of IHSS 184 are scheduled for spring 1993. The addition of four survey locations into the existing FSP would cover the investigation phase of this PAC. However, if "hot spots" are identified requiring additional sampling, overall schedule modifications should be anticipated.

Operable Unit 9 (Original Process Waste Lines)

The Phase 1 RFI/RI Work Plan for OU 9 will incorporate PAC 800-1200 and the UBC sites referenced on the previous page by fall 1993. Twelve UBC sites will be addressed without significant impacts to cost and schedule by reconfiguring borehole locations near buildings suspected of having UBC concerns.

Operable Unit 12 (400 and 800 Areas)

PAC 400-807 and PAC 400-810 have already been incorporated into the RFI/RI Work Plan for Operable Unit 12. These PACs will require no additional cost or have schedule impacts. PACs 400-803, 400-804, and 800-1201 will be incorporated by a Technical Memorandum into Phase 1. No significant impact to cost or schedule are expected for PACs 400-804 and 800-1201, however, PAC 400-803 may impact both cost and schedule for further investigation.

PAC 400-801 was documented in 1987 as being a PCB transformer leak on the roof of building 447. This PAC will be remediated under RCRA/CERCLA (IAG) regulations due to its location within IHSS's 116.1, 208, and 157.2. The site was sampled in August of 1991 and contamination was found to be 54 ppm PCB's at ground level (below a downspout). Further investigation of this area will be incorporated under Phase 1 of OU 12.

Operable Unit 13 (100 Area)

Radiological analysis (HPGe), soil gas surveys for VOCs, and soil boring activities adjacent to the Original Process Waste Line (OPWL) within IHSS 148 will adequately address further investigations for PAC 100-602 and PAC 100-603 (see section 6.3.1.6 OU 13 Work Plan). Discrete samples will be collected

at specific depths to include the following parameters: TAL metals, radionuclides, nitrates, chlorides, and sulfates. Since these PACs already exist within IHSS 148, no modifications to the OU 13 Work Plan will be required. If contaminants are found, a second stage of sampling will be proposed in the scheduled Technical Memorandum to determine the nature and extent of contamination. An effort will be made to confirm or refute recorded sampling attempts at the security incinerator in Building 123 (PAC 100-609). If no results can be obtained, then sampling recommendations will be made in the Decontamination & Decommissioning Plan for Building 123. Some sampling could be justified under stage 2 of OU 13 for this area. A Technical Memorandum will report results of the stage 1 data search and make further recommendations based upon the findings.

PAC 100-611 will be incorporated into either Stage 2 or Stage 3 of OU 13 after Stage 1 investigations are completed. Additional soil borings around the building foundation may be warranted.

PAC 300-702 will be incorporated by Technical Memorandum 1 and indicate number of samples and sampling locations to be included as part of the Integrated Surface Water and Sediment Field Sampling program. Sampling results will also be included in the Tech Memo. Sampling activities in IHSS 158 adequately address PIC #9 which include soil gas investigations for carbon tetrachloride. No specific sampling will take place to evaluate aqueous ammonia spilled in the area.

PAC 500-904 was documented in 1987 as being a PCB transformer leak south of building 223. This site will be remediated under RCRA/CERCLA (IAG) regulations due to its location within IHSS's 117.1, and 186. The transformer area was sampled in August 1991 where contamination of the soil was found to be 55 ppm PCB's. The nature and extent of contamination will be reviewed and findings incorporated into Technical Memorandum 1 to outline appropriate actions in Stage 2.

Operable Unit 14 (Radioactive Sites)

PACs 400-802, 600-1001, 500-902, 700-1102, 800-1210, and 700-1103 will be incorporated into the OU 14 Work Plan by April 1994 (via Tech Memo 1). The Majority of PAC 700-1100 is superimposed over, or adjacent, to, IHSS 131 and also part of Operable Unit 9 (OPWL). Investigation of this area will be incorporated into OU 14 Phase 1 (via Tech Memo 1). Inclusion of PACs 800-1204 and 800-1205 into Operable Unit 14 is feasible however, we request a meeting to discuss significant impacts to cost and schedule for this investigation.

- 3) New Operable Unit (OU 17) - The RFP sanitary sewer system has been used for transport, storage and treatment of sanitary waste since plant operations began in 1952. Historically, an undetermined number of incidents involving wastes other than sanitary wastes have discharged into the sewer system. Due to the vast configuration of the sewer system and its dissimilar relationship to that of the OPWL (OU 9), it is recommended that a new Operable Unit be assigned for investigating PAC 000-500. In several areas of this investigation, information obtained from field activities for OU 9 could be used in the investigation of the new OU proposed.
- 4) IHSS Boundary Changes - Upon finalization of the Historical Release Report several irregularities have been identified with respect to IHSS boundaries (see Table 1). Some of the boundary changes are a result of timing between HRR development and RFI/RI Work Plan approval. Examples of this are apparent in comparing final IHSS location maps from OU 1 and OU 2 approved Work Plans to existing HRR IHSS location maps. To address this situation, we propose the following steps: (1) where field work is done by prior interpretation, the final report will evaluate the data collected and determine if the boundary changes are adequately addressed (2) for boundary changes not resulting from prior interpretation, it may become necessary to schedule supplemental investigation activities either as another phase or addendum. In either case, a definitive approach for each effected OU will be determined in concurrence with EPA and CDH on a case by case basis.
- 5) Decontamination and Decommission D&D - The UBC sites listed below are recommended for incorporation into building specific D&D plans. Data gathered from Operable Unit Field activities (sampling, drilling etc.) near these areas would greatly contribute to the building specific D&D Plans.

UBC sites 371, 374, 528, 701, 731, 770, 777, 778, 991, 122, 125, 331, 439, 440, 441, 447, 865, 886, 889

Table 1

Potential Areas of Concern/ Potential Incidents of Concern (Addition to RFI/RI Workplans)						IHSS Boundary Changes			
Operable Unit (OU)	PAC/PIC Additions (Yes/No)	PAC/PIC Numbers	Within Existing IHSS (Yes/No)	Same Contaminants of Concern (Yes/No)	Incorporated Into Workplan By?	IHSS Boundary Changes (Yes/No)	IHSS Numbers	Same Contaminants of Concern (Yes/No)	Incorporated Into Workplan By?
OU1	No	None	N/A	N/A	N/A	Yes	102	Yes	No Impact
OU2	No	None	N/A	N/A	N/A	Yes	110, 111.1, 111.8, 111.2, 111.3, 111.4, 111.6, 111.5, 216.3, 216.2	Yes	No Impact
OU3	No	None	N/A	N/A	N/A	No	None	N/A	N/A
OU4	No	None	N/A	N/A	N/A	No	None	N/A	N/A
OU5	No	None	N/A	N/A	N/A	Yes	133.1, 133.2, 133.3, 133.4, 133.5, 115	Yes	Completed 2/28/93
OU6	Yes	900 - 1307	No	Yes	Phase II Workplan, 10/94	Yes	143, 156.2, 167.2, 167.3	Yes	Phase II Workplan 10/94
OU7	No	None	N/A	N/A	N/A	Yes	114	Yes	No Impact from Change
OU8	Yes	700 - 1101, 700 - 1108, 900 - 1301, PIC#44, 700 - 1106	Yes	Yes	9/93, TM1	Yes	135, 137, 138, 139, 144, 150.2, 150.3, 150.4, 150.7, 150.6, 150.8, 163.1, 172, 173, 184, 188	Yes	Completed 12/92
OU9	Yes	800 - 1200, UBC - 559, 707, 771, 774, 776, 779, 123, 442, 444, 881 883 - 887	Yes	Yes	10/93	Yes	121, 122, 123.2, 124, 125, 126, 127, 132, 146, 147.1, 149, 159, 215	Yes	10/93
OU10	No	None	N/A	N/A	N/A	Yes	177	Yes	Completed 92
OU11	No	None	N/A	N/A	N/A	No	None	N/A	N/A
OU12	Yes	400 - 803, 400 - 804, 400 - 807, 400 - 810, 800 - 1201, 400 - 801	Yes	Yes (+PCBs)	Phase I FY94	Yes	147.1	Yes	Transferred to OU9
OU13	Yes	100 - 602, 100 - 603, 100 - 609, 100 - 611, 300 - 702, PIC#9, 500 - 904	Yes	Yes (+PCBs)	Revised Final Phase I 3/9/93	Yes	158	Yes	Completed 10/9/92
OU14	Yes	700 - 1100, 600 - 1001, 400 - 802, 700 - 1103, 500 - 902, 800 - 1210, 700 - 1102, 800 - 1204, 800 - 1205	Yes	Yes (+PCBs)	4/94 (TM1) Request Meeting with Agencies	Yes	156.1, 160	Yes	Completed 10/92
OU15	No	None	N/A	N/A	N/A	No	None	N/A	N/A
OU16	No	None	N/A	N/A	N/A	Yes	195	Yes	No Impact